

PALEONTOLOGY.—*A new species of Cymbiocrinus from the Pitkin.* HARRELL L. STRIMPLE, Bartlesville, Okla. (Communicated by Alfred R. Loeblich, Jr.)

The form described below as *Cymbiocrinus pitkini*, n. sp., is from the Pitkin formation, Chester, of the Cookson Hills southeast of Fort Gibson, Okla. Strong affinity with Pennsylvanian representatives of the Ampelocrinidae is indicated.

DENDROCRINOIDEA Bather

AMPELOCRINIDAE Kirk

*Cymbiocrinus* Kirk, 1944

*Cymbiocrinus pitkini*, n. sp.

FIG. 1

*Description.*—The crown of the holotype is 43 mm high; the dorsal cup is about 2.5 mm high by 9.6 mm wide.

Dorsal cup is shallowly bowl-shaped, with shallow basal concavity. IBB small, confined to the basal concavity and entirely covered by the pentagonal shaped proximal columnals. BB are five, small, and form sides of the basal concavity but curve upward to participate slightly in the lateral walls of the cup. RR are five large elements with width slightly greater than length. The single anal plate is quadrangular, resting evenly on the truncated upper edge of post. B, and does not extend above the cup height.

There are 10 long, slow-tapering, uniserial arms.  $PBr_1$  is low, wide, with lateral sides tapering slightly. Axillary  $PBr_2$  is large, lateral sides expanding for a short distance thence sloping rapidly to the apex of the plate. SBrBr are remarkably regular segments. Each SBr appears to have two well-developed though thin pinnules of moderate length, one on each lateral side. There is no demonstrated tendency toward fusion, or syzygy, other than between  $PBr_1$  and  $PBr_2$ .

The tegmen, or anal sac, has not been observed.

*Remarks.*—The arms of *C. pitkini* serve most readily to distinguish it from other described species. The regularity of the relatively thick SBrBr, with no tendency toward cuneiformity or syzygial pairs, is unique for known species

referred to this genus. *C. gravis* Strimple (1951), from the slightly older Fayetteville formation, has cuneiform arms, and the axillary  $PBr_2$  has no lateral sides, so that the first SBr is in contact with  $PBr_1$ . The basal plates of *C. gravis* are more pronounced and bulbous than those of *C. pitkini*. Both species have pentagonal stems and in that respect are distinct from all other known species of *Cymbiocrinus*.

*Occurrence.*—Approximately 4 miles southeast of Greenleaf Lake in bluff overlooking the Arkansas River, Cookson Hills, Okla.; upper Pitkin limestone formation, Chester, Mississippian.

*Types.*—Holotype and paratype collected by the author. To be deposited in the U. S. National Museum.

#### REFERENCES

- KIRK, EDWIN. Amer. Journ. Sci. **242**: 233-245. 1944.  
 STRIMPLE, HARRELL L. Bull. Amer. Pal. Soc. **33**(137): 18, 19, pl. 4, figs. 4-6. 1951.



FIG. 1.—*Cymbiocrinus pitkini*, n. sp. View of holotype from the posterior,  $\times 1.7$